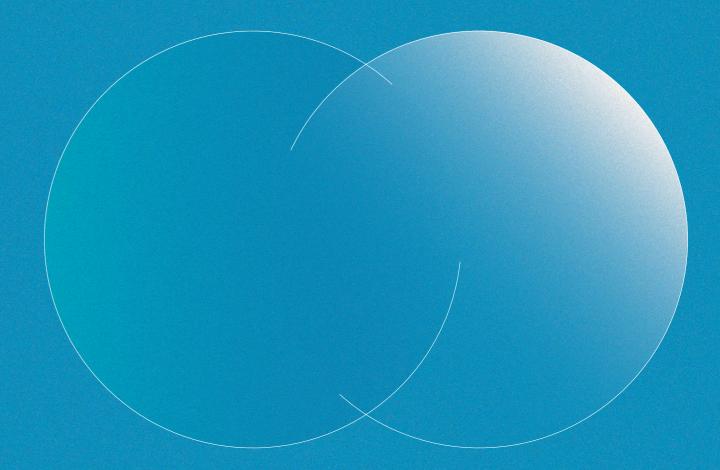
HORIBA

HORIBA Advanced Techno, Co., Ltd.

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Shaping Tomorrow: Embracing Every Aspect of Corporate Innovation

Safe and secure water is an indispensable resource for supporting daily life and social infrastructure. Essential for the continued protection of nature and the diverse ecosystems thriving on this planet. We at HORIBA Advanced Techno have been addressing various environmental challenges by leveraging our core technology in water and liquid measurement to support the circulation of water resources, with the mission of "protecting water quality worldwide".

And going forward, not only will we contribute to the environment through our technology for measuring water, but we will also make all aspects of our corporate activities sustainable for the future. Employees who work together, customers and partner companies, local communities, and society, as well as the global environment.

We will continue to pursue methods for a sustainable existence by examining every connection and shaping what we can do for the future, one step at a time.

Water tells us, we talk with them for our global future.

TOP MESSAGE







Being attentive to environmental and social challenges, protecting the water quality through analysis all over the world.

HORIBA Advanced Techno utilizes the measurement and analysis technologies possessed by the HORIBA Group to continuously support water infrastructure 24/7, 365 days a year, while also advancing the provision of solutions to address diversifying social issues.

For example, water quality testing and monitoring that support seawater desalination and water circulation systems to address water shortages. Proposals for automation and labor-saving measures for water and wastewater treatment facilities facing severe labor shortages. Establishing new measurement methods for substances that adversely affect the environment and human health. Furthermore, we are focusing on developing compact water quality meters for research facilities, aiming to contribute to the advancement of academic research and quality control in development and production processes. By addressing these diverse measurement needs, we aim to make measuring technology, useful for more people.

Challenging three essential fields for the new society with water and liquid measurement technology.

Energy and Environment business field contributes to solving various social issues for the realization of a sustainable society. Bio and Healthcare supports research in bioscience and life sciences to protect healthy, safe, and secure living. Advanced Materials and Semiconductors support advanced information technology, essential for realizing the new normal. In these three fields, HORIBA Advanced Techno leverages one of the core technologies that the HORIBA Group has developed over its 70-year history, water and liquid measurement technology, to tackle various problem-solving and technological innovations.

Related products







Field-installation Type Water Quality Meter H-1 Se Ammonia Nitrogen Meter HC-200NH

By measuring, power consumption and environmental impact can be significantly reduced.

The Ammonia Nitrogen Meter HC-200NH measures and manages the concentration of ammonia nitrogen, an indicator of impurities in the wastewater treatment process, enabling optimization of blower (air mover) control for approximately one-third* of the electricity currently accounts consumption in wastewater treatment facilities. This contributes to the reduction of power currently accounts consumption and environmental impact.

*HORIBA research 2017

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Related products



Benchtop Water Quality Meter LAQUA F-70 Series



Rapid Microorganism Detection Syste

Supporting those who support health, through the technologies we possess.

HORIBA Advanced Techno has designated Pharmaceuticals and Biopharmaceuticals as one of its focus areas. Especially in the field of biopharmaceuticals, liquids are used in various stages of the production process, ranging from cell culture to purification, adjustment, sterilization, filling, and shipping tests. By providing reliable measurement data and addressing each measurement need, we will support the stable supply of high-quality pharmaceuticals.

We aspire to leverage HORIBA's technologies to contribute in areas such as monitoring health conditions and self-checks at home or in nursing care facilities as well as managing health to reduce the risk of lifestyle diseases. By supporting the activities of industries and research institutions involved in bio and healthcare, we aim to enhance the quality of healthy life for anyone.

We aim to expedite and enhance the sensitivity of microbial testing, contributing to the safety and timely supply of pharmaceuticals.

The rapid microorganism detection system Rapica utilizes the principle of ATP bioluminescence to achieve rapid and high-sensitivity detection. Detection of microbial cells at the level of 1 cell is now possible in approximately 2.5 hours. Such quick analytical method enables the stable production of high-quality pharmaceuticals, contributing to the timely and stable supply of medicines to patients who need them.



Related products







Chemical Concentration Monitor CS-900

Aiming to further contribute by closely supporting the semiconductor supply chain.

In the semiconductor manufacturing process, wafer cleaning is frequently performed, and precise concentration control of the chemical solutions used for cleaning is required. Furthermore, chemical concentration monitors are indispensable in semiconductor manufacturing to optimize the usage of chemicals and promote the reduction of environmental impact. HORIBA Advanced Techno has contributed to the quality of semiconductor devices and the management of chemicals with its chemical concentration monitors, which boast a world-class market share*. And now, by expanding its business field to advanced materials and the semiconductor sector, we aim to make further contributions throughout the entire semiconductor supply chain. This includes, not only the manufacturing process, but also providing measurement technologies to chemical suppliers. By establishing application development laboratories near semiconductor manufacturers in various countries and setting up production facilities and technical support teams within Japan, we will support the realization of an advanced information technology society through our global network.

Non-contact measurement of chemicals in piping and real-time measurements of high-temperature phosphoric acid.

The non-contact chemical concentration monitor CS-900 enables safe and stable concentration monitoring without chemical leakage or contamination, as it measures without the chemicals touching the sensor. The optical fiber type hot phosphoric acid concentration monitor CS-620F measures high-temperature phosphoric acid, primarily used in the etching process of 3D NAND memory devices, in real-time without cooling. With quick measurement feedback data, it contributes to improvements in quality and productivity.

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The Story of Our Product Development



Modular Water Supply Quality Monitor GX-100

Introducing our development project for the Modular Water Supply Quality Monitor GX-100, which aims to expand access to safe water worldwide, with innovative ideas and technology, anticipating the measurement needs of the next generation.

1. Market Needs Survey

Many regions around the world lack easy access to safe water at all times, making infrastructure development crucial, including water storage, drainage, reuse, and disaster preparedness. We have explored solutions to societal water issues through water quality measurement technologies. We had concluded into the concept of a water quality measurement device that allows anyone to easily verify water safety. Creating proposals from the bottom up carries significant responsibility, but that's precisely why it's so rewarding.



2. Product Planning

As we delved into what features are necessary for reliable water quality management independent of location or administrator, and how to make monitoring easy to handle with limited personnel, we arrived at the concept of sensor modularization. This approach allows for the separation of sensors, making individual maintenance easier and contributing to reduced downtime and personnel requirements. By incorporating a remote management system, you can access real-time data from distant on-site locations.



3. Designing and Engineering

Creating a modular sensor system was a new endeavor for us. We had to address not only performance and durability but also achieving the targeted cost challenges.

Specialists in each element of design came together, contributing their expertise, engaging in discussions, conducting experiments, and sometimes encountering conflicts along the way



4 Start of Production

To deliver the product to customers, we value the important and rigorous feedback received from internal and external evaluations. The product development departments collaborate across boundaries with the production engineers to pass the baton to the factory in terms of quality, cost, and logistics management. We recognize each other's positions, engage in discussions until we reach consensus, and refine it until we are satisfied with the outcome.



5. Global User Support

A new concept born from the user needs for remote water quality monitoring management, modularizing sensors. With diverse ideas from various perspectives, we came together as one team under the goal of "protecting water quality worldwide", and the project progressed.

Our challenge and exploration for the sustainable circulation of safe and reliable water resources will continue.



Our joy and fun through development



Project Leader I.K.

To advance the development of unprecedented products, we aimed to foster an active team where everyone could engage in lively discussions. Each of us holds the perspective of "what customers really need", and today, various opinions are being exchanged as we continue good discussions.



Electrical Design K.I.

Taking the time to visit various places around the world during the planning and conceptual stages has been an invaluable experience, allowing us to firsthand experience the challenges faced in different locations. Even after the shipment, I want to go to the field again and be involved in delivering the product to people around the world.



Software Design S.T.

Even for technologies like Bluetooth® or applications where we have limited development experience or know-how internally, there are always pioneers in the software world to guide us. We approached development while keeping in mind how to access the necessary information effectively.

*Bluetooth® is a registered trademark of Bluetooth SIG, Inc., and Horiba Advanced Techno Co., Ltd. uses it under license.



Experiment E.O.

The experimenting team collaborates across various disciplines, from mechanical to electrical to software, learning new things every day and tackling challenges through repeated trials. "There is nothing that cannot be done". An environment where you can confidently say that and challenge anything here.



Structural Design W.K.

In our pursuit of a design usable by everybody, we encountered many obstacles. During those times, we found breakthroughs by valuing not only theory but also our internal fuzzy sense, which helped us develop the ability to confront unknown challenges

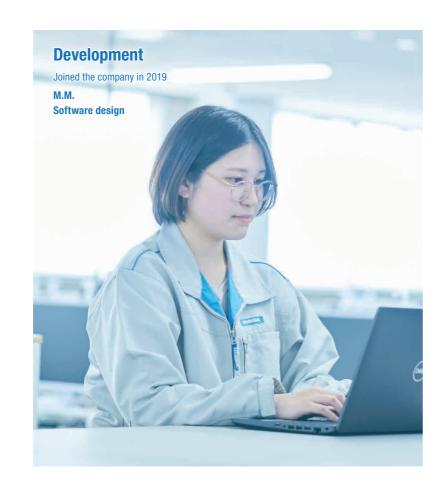
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Shaping Our Future Together

Unleashing the desired performance through the power of software

As a software engineer, I am involved in the development of essential chemical concentration monitors indispensable for semiconductor manufacturing.

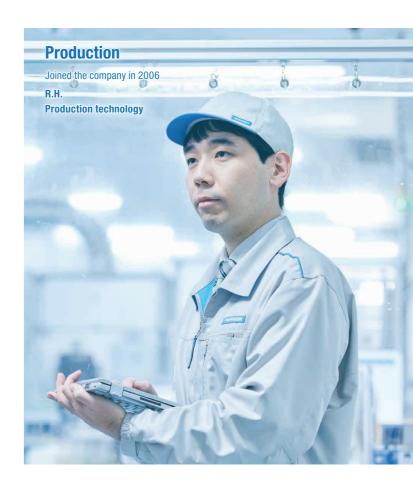
Since the measurement of chemicals directly affects the quality of semiconductors as well as assisting in the reduction of environmental impact, we aim to develop devices that can always provide accurate values without any false information in the measurement results. And now, the new product we are developing will incorporate sensors that we have never used before, making it a new challenge for me to unleash the performance of these sensors through the power of software. Learning new things every day, I am proceeding with the development while deepening my understanding of circuits and components through discussions with our in-house electrical specialists as well as collaborating with partner companies. I aim to continue expanding my knowledge while facing the principles of "developing", and I hope to build my carrier as an engineer who can oversee and lead development.



Sharing the joy of "development" across professions and borders

I consider myself fortunate to have been assigned to the production site of HORIBA's founding product, the "pH meter". shortly after joining the company. I was able to experience every procedure from processing raw materials to shipping the finished products. Currently, as a member of the production technology department, I am mainly involved in launching new products. By getting involved in the product manufacturing process from the planning stage, expanding the range of proposals that can be presented. The day our team, overcoming challenges together and the product sees its first shipment, is the most joyful moment as we can share words of encouragement and gratitude with each other as a team, and capture the moment with a commemorative photo, knowing that our efforts have been rewarded. Lately, I've been handling more work with overseas bases and was assigned to Singapore to be involved in setting up a production base. Despite struggling with English, I persevered in making improvements, gained trust, and together, we were able to build a production system.

I feel that this experience has led to significant personal skills and expertise development.





Crossing language and cultural barriers, sincerely, one step at a time

I graduated from a university in South Korea and took the first step in my career by joining HORIBA Advanced Techno as a sales representative. I had to adjust to life in Japan and working in a field which was different from what I had majored in. The first year was challenging, even for tasks as simple as document creation, but thanks to the buddy system where seniors provided one-on-one support, I gradually became accustomed to it. In my second year, I was assigned as the sales representative for semiconductor manufacturing equipment customers, and I found myself in situations where I had to think and act independently more often. There are various measurement needs in the semiconductor manufacturing process, and I realized firsthand that HORIBA's measuring instruments are indispensable. As a result, when problems arise, we sometimes receive harsh feedback from customers. However, in such times, I make it a point to remain calm, gather cooperation from within the company, thoroughly investigate the cause, and respond appropriately. My current goal is to build trust with customers through repeated sincere actions.



Utilizing customer "voice" to take on new challenges one after another

At the customer support center, we receive various inquiries and concerns from customers, ranging from technical questions about products to issues related to usage or troubleshooting. Through interacting with such "user's voices", our team is currently challenging ourselves to explore new avenues to enhance customer experience and provide better products and services. For example, we have created short movies where we explain common operations and troubleshooting methods. We've also introduced an Al Chatbot and held webinars to explain the principles of pH meters. This has led to an attitude within the team where we don't just wait for phone calls from customers but actively engage in outreach ourselves. We've had comments such as "the movies were helpful in assisting customers when I was having trouble providing a response for them", and there was the another request that they wanted us to provide a specific product featured technical information. These comments have become a driving force to begin new challenges for us.

Company Overview

Corporate Name HORIBA Advanced Techno, Co., Ltd.

Registered Address Minami-ku, Kyoto City, Kyoto Prefecture

March 28th, 1975 Incorporation

Capital Fund 250 million yen

Fiscal Year-end December 31st

Executives Atsushi Horiba Chairman President and CEO Kentaro Nishikata

Vice President and

Senior Corporate Officer Koichiro Kanaya Corporate Officer Masashi Nishimura

Junior Corporate Officer Ryoji Miki **Junior Corporate Officer** Makoto Mori

Number of Employees 407 (as of May 2024)

Business Activities 1. Manufacturing and sales of measuring instruments, their applied devices, and components

2. Contracting of maintenance services for measuring instruments and their applied devices

3. Measuring equipment installation business

4. All businesses related to the above

Primary Bank for Transactions MUFG Bank, Ltd. (Kyoto Branch)

Domestic Group Companies HORIBA, Ltd.

HORIBA STEC Co., Ltd.

HORIBA TECHNO SERVICE Co., Ltd.

www.horiba.com/int/water-liquid/



O Domestic Base of Operations

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Kyushu Sales Office

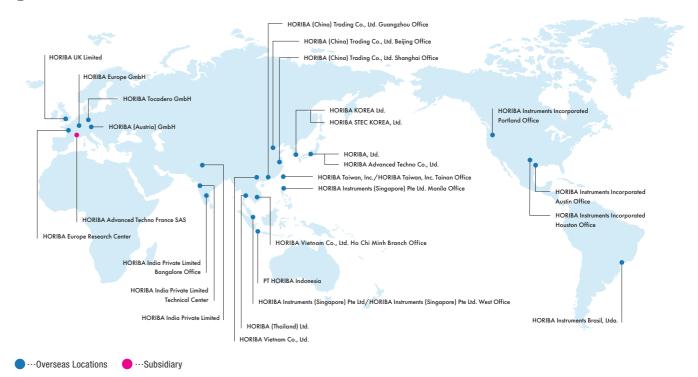
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- +81 92 292 3596

Kyushu Chuo Sales Office

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- +81 75 321 7291

Overseas Locations and Subsidiaries





HORIBA Water Quality Measurement in Environmentally Advanced Countries in Europe A new business expansion base is established

Tethys Instruments SAS, a French water quality measurement equipment manufacturer, joined the HORIBA Group in April 2023. Contributing to the enhancement of the water quality measurement business, supporting the needs of emerging and developing countries, to sustain the limited water resources on Earth. Our company, collaborates with our colleagues at HORIBA Advanced Techno France to leverage the synergies of mutually held technologies, accelerating new product development and expanding businesses in water safety, security, and environmental conservation. We will deliver unique water quality measurement systems and a wide range of solutions leveraging their strong UV spectrophotometry technology.

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